

REMARKS

Claims 1, 2, 4 and 5 are pending in the present application. Claims 1, 2 and 5 have been amended to recite the subject matter of canceled claim 3. Claim 4 has been amended so as not to depend from canceled claim 3.

No new matter has been added by way of the above-amendment.

Prior Art Based Rejections

Claims 1-5 are rejected under 35 U.S.C. 102(a)¹ and (e) as being anticipated by Aoi US 2002/0034873 and its corresponding patent US 6,903,006 (hereinafter collectively "Aoi"). Applicants respectfully traverse the rejection.

Applicants have carefully reviewed both Aoi and believe that the claims as currently amended define patentable subject matter which is neither taught nor fairly suggested by Aoi. Each of independent claims 1, 2 and 5 (as currently amended) requires that the adamantane ring be bonded directly or indirectly to three carboxylic acid groups (-COOH) and to "Y₄-X_a" wherein Y₄ is a single bond or a bivalent aromatic cyclic group and X_a is a hydrogen atom or a hydrocarbon group. The Examiner will note from the adamantane compound of Fig 6A of Aoi that all four aromatic rings are substituted with a carboxylic acid group (-COOH). The Examiner will also note (from paragraphs 0041 and 0049 of the '873 Publication) that chemical formulae 1 and 3 of Aoi do not fairly suggest the inventive configuration wherein the adamantane ring is bonded directly or indirectly to three carboxylic acid groups (-COOH) and to "Y⁴-X^a" wherein Y⁴ is a single bond or a bivalent aromatic cyclic group and X^a is a hydrogen atom or a hydrocarbon group.

¹ It is noted that Publication No. 2002/0034873 is available under 35 USC 102(b).

In describing the requirements for rejection of a claim by anticipation, the Manual of Patent Examining Procedure (Section 2131) states:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference (ref. omitted). The identical invention must be shown in as complete detail as is contained in the... claim (ref. omitted)."

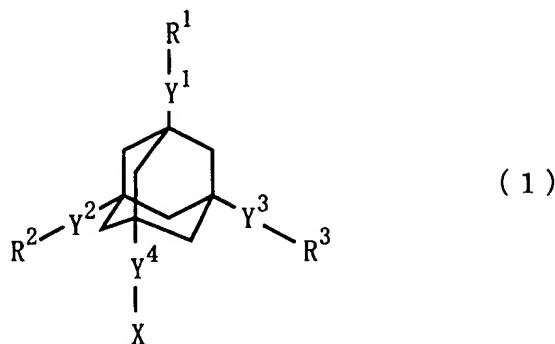
In view of the fact that Aoi does not fairly suggest the inventive configuration wherein the adamantane ring is bonded directly or indirectly to three carboxylic acid groups (-COOH) and to "Y⁴-X^a" wherein Y⁴ is a single bond or a bivalent aromatic cyclic group and X^a is a hydrogen atom or a hydrocarbon group, a *prima facie* case of anticipation cannot be said to exist. Withdrawal of the rejection is respectfully requested.

Obviousness-Type Double Patenting Issues

Claims 1-5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of copending application number 10/807,426 (the '426 application). Applicants respectfully traverse the rejection.

Applicants respectfully submit that claims 1-5 of the instant application do not define an invention that is merely an obvious variation of an invention claimed in the the '426 application. Claim 1 of the '426 application is as follows:

1. A material for dielectric films, which is a polymerizable composition comprising:
an adamantane polycarboxylic acid derivative represented by following Formula (1):



(1)

wherein X is a hydrogen atom, a hydrocarbon group or R⁴; R¹, R², R³ and R⁴ may be the same as or different from one another and are each a carbonyl halide group or a carboxyl group which may be protected by a protecting group; and Y¹, Y², Y³ and Y⁴ may be the same as or different from one another and are each a single bond or a bivalent aromatic cyclic group, wherein at least one of R¹, R² and R³ is a carbonyl halide group or a protected carboxyl group when X is a hydrogen atom or a hydrocarbon group, and at least one of R¹, R², R³ and R⁴ is a carbonyl halide group or a protected carboxyl group when X is R⁴;

an aromatic polyamine derivative represented by following Formula (2):



(2)

wherein Ring Z is a monocyclic or polycyclic aromatic ring; R⁵, R⁶, R⁷ and R⁸ are each a substituent bound to Ring Z, R⁵ and R⁶ may be the same as or different from each other and are each an amino group which may be protected by a protecting group, and R⁷ and R⁸ may be the same as or different from each other and are each an amino group which may be protected by a protecting group, a hydroxyl group which may be protected by a protecting group, or a mercapto group which may be protected by a protecting group, wherein at least one of R⁷ and R⁸ is a protected amino group, a protected hydroxyl group or a protected mercapto group when R⁵ and R⁶ are both amino groups; and

an organic solvent,

the adamantane polycarboxylic acid derivative and the aromatic polyamine derivative being dissolved in the organic solvent. (Emphasis added).

In the above-cited claim 1 of the '426 application, the highlighted sentences shows that there is a sharp distinction between the present claims and the claims of the '426 application. In Formula (1) of the '426 application, at least one of X and R¹~R³ is derivatized (i.e., has a

protecting group or halide). On the other hand, the compound represented by Formula (1) of the present invention is not derivatized.

Similarly, the aromatic polyamine represented by Formula (2) of the '426 application is characterized by at least one of R⁵~R⁸ being protected by a protecting group. The compound represented by Formula (2) of the present invention does not have any protecting groups.

Thus, the material for dielectric films of the present invention clearly differs from the material for dielectric films of the '426 application in the structure of the monomers contained therein.

With respect to the polymer, the present claims and the claims of the '426 application are different from each other in view of the fact that the monomer components of each composition are different from each other in the same respect as mentioned above (protected versus non-protected). Furthermore by converting at least one of an adamantane polycarboxylic acid and an aromatic polyamine as monomer components into a derivative (protecting group or halide group), the composition (material for dielectric films) of the '426 application has significantly higher solubility in a solvent, which affects the number of crosslinking points in the obtained polymer. That is, each polymer of the both applications has a different crosslinking structure.

Based on the above-considerations, the claimed subject matter of the present invention and that of the '426 application are different from each other, and as such, withdrawal of the obviousness-type double patenting rejection is respectfully requested.

With the above remarks, Applicants believe that the claims, as they now stand, define patentable subject matter such that passage of the instant invention to allowance is warranted. A Notice to that effect is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Garth M. Dahlen, Ph.D., Esq. (Reg.

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No. 43,575) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

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Respectfully submitted,

By

Gerald M. Murphy, Jr.

Registration No.: 28,977

BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road, Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicant